

[illegible]

Db 61 GIPETKGLWSDDRKKHLLIREQHPELDRLVFSSRSKLYKGSPTS YGEWCKKHGILF 120
 Qy 121 ADKLIPAEWIKPKKEVPFDRKRRKGGKK 149
 ||||| :|||||||: |||||
 Db 121 ADKLIPVAGVKEPKKEVPDFKFKTKKGVK 149

10/585964 SEQ ID NO:25

RESULT 12
 ENRN_BPT3
 ID ENRN_BPT3 Reviewed; 152 AA.
 AC P20314;
 DT 01-FEB-1991, integrated into UniProtKB/Swiss-Prot.
 DT 01-FEB-1991, sequence version 1.
 DT 25-NOV-2008, entry version 38.
 DE RecName: Full=Endodeoxyribonuclease I;
 DE EC=3.1.21.2;
 DE AltName: Full=Endodeoxyribonuclease I;
 DE Short=Endonuclease;
 GN Name=3;
 OS Enterobacteria phage T3 (Bacteriophage T3).
 OC Viruses; dsDNA viruses, no RNA stage; Caudovirales; Podoviridae;
 OC Autographivirinae; T7-like viruses.
 OX NCBI_TaxID=10759;
 OH NCBI_TaxID=562; Escherichia coli.
 RN [1]
 RP NUCLEOTIDE SEQUENCE [GENOMIC DNA].
 RC STRAIN=Luria;
 RX MEDLINE=90133923; PubMed=2614843; DOI=10.1016/0022-2836(89)90102-2;
 RA Beck P.J., Gonzalez S., Ward C.L., Molineux I.J.;
 RT "Sequence of bacteriophage T3 DNA from gene 2.5 through gene 9.";
 RL J. Mol. Biol. 210:687-701(1989).
 CC -!- FUNCTION: Endodeoxyribonuclease I, which is expressed in the late
 CC stage, is necessary for T3 genetic recombination and the breakdown
 CC of host DNA. In the early stage of infection, T3 DNA replicates as
 CC a linear monomer. In the late stage, the T3 DNA replicates via
 CC linear concatemers several genomes in length. The gene 3 product
 CC has also been implicated in the maturation of these concatemers.
 CC -!- CATALYTIC ACTIVITY: Endonucleolytic cleavage to 5'-
 CC phosphooligonucleotide end-products.
 CC
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 CC
 CC EMBL: X17255; CAA35132.1; -, Genomic DNA.
 DR PIR: S07505; S07505.
 DR RefSeq: NP_523312.1; -.
 DR ESWP: P00641; LMD.
 DR SMD: P20314; 17-145.
 DR GeneID: 927412; -.
 DR GO: GO:0005634; C:nucleus; IEA:InterPro.
 DR GO: GO:0008933; F:deoxyribonuclease IV (phage-T4-induced) act. . .; IEA:InterPro.
 DR GO: GO:0003677; F:DNA binding; IEA:InterPro.
 DR GO: GO:0015074; P:DNA integration; IEA:InterPro.
 DR GO: GO:0016032; P:viral reproduction; IEA:InterPro.
 DR InterPro: IPR008029; Endonuclease-I_phage.
 DR InterPro: IPR011578; Restrict_endonuc_C/endonuc_I.
 DR Gene3D: 3DSM13.40.21.20; Restrict_endonuc_C/endonuc_I; 1.
 DR Pfam: PF05367; Phage_endo_I; 1.
 PE 4: Predicted;
 KW Endonuclease; Hydrolase; Nuclease.
 FT CHAIN 1 152 Endodeoxyribonuclease 1.
 FT /FTid=PRO_0000106485.
 SQ SEQUENCE 152 AA; 17432 MW; BFCDE82A4C0D611B CRC64;

Query Match 77.7%; Score 615; DB 1; Length 152;
 Best Local Similarity 83.1%; Pred. No. 5,6e-49;
 Matches 113; Conservative 11; Mismatches 12; Indels 0; Gaps 0;

QY	14	AFRSGLEDKVSKQLSEKGLKFEEYEWKVPYYPISNHTYTPDFLEPLNGFIETKGLWSD	73
Db	14	AFRSGLEDKVSKQLSEKGLKFDEYELWIRPYYPFESDILYTPDFLEPLNGFIETKGLWSD	73
Qy	74	DRKKHLLIREQHPELDRIIVFSSSRITLKYGSPSYGEFCEKHGLFKADKLIPIAEWIKE	133
Db	74	DRKKHLLIREQHPELDRIIVFSSSRSLKYGSPSYGEWCKEHLGLFADKLIIVAGVKPE	133
Qy	134	KKEVSFDRLKRGCKCK	149
Db	134	KKEVPFDKFKTKRGVK	149